

***REMARKS***

Upon entry of the present amendment the Claims under consideration remain Claims 1-2, 4-6, 8-10, 14-19, and 21-25. Claim 9 has further been amended to substitute "Young's modulus" for the equivalent term "modulus of elasticity" in order to expedite prosecution. The specification has been amended to make clear the elongation testing procedure set forth in the specification was used for deriving the Young's modulus as claimed. No new matter is added hereby. All other Claims under consideration also depend from Claims 1 and 9. The Detailed Action of 21 July 2004 will be addressed with reference to any paragraph numbers or subject matter headings contained therein.

**Examiner Interview Summary**

A telephonic interview was conducted between Applicants' undersigned attorney and Examiner Jacqueline Stephens on 19 October 2004. The enablement and §112 rejections were discussed. It was agreed the objections to the specification would be obviated by amending the specification to make clear that the Elongation Testing description, originally set forth in the specification at page 30, lines 3+, was the test used to determine Young's moduli for the claimed materials. No prior art references were discussed. Applicants' undersigned attorney thanks the Examiner for the courtesy shown him during their interview.

***Allowable Subject Matter***

The previously indicated allowability of Claims 7, 8, and 13 (as incorporated into the independent claims by the last amendment) has been withdrawn by the present Office Action and: “the limitations of the claims, which has now been incorporated into the independent claims is rejected”<sup>1</sup> as containing subject matter not enabled by the specification. Applicants respectfully traverse, believing that the bases for objections to the specification as nonenabling and failing to provide antecedent basis for the claims (as set forth in paragraphs 2 and 3 of the Detailed Action) are incorrect, as further discussed below.

Per paragraph 2, it is the contention of the Detailed Action that:

“The specification references a CD modulus, an MD modulus, and an MD/CD Young’s modulus ratio without providing guidance as to how to determine the values. Additionally, there is no indication that CD modulus and MD modulus values are necessary to determine infringement of the applicant’s claims regarding a Young’s modulus percentage (sic)<sup>2</sup>.”

According to paragraph 3 of the Detailed Action,

“Correction of the following is required: claims 1 and 8 recite the limitation “a Young’s modulus” in lines 4 and 2, respectively. Claim 9 cites the limitation “a modulus of elasticity” in line 10. The specification references a CD modulus, an MD modulus, and an MD/CD modulus ratio on page 26, lines 11-12. However the disclosure lacks antecedent basis for the claimed limitations.”

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<sup>1</sup> Applicants note that limitations *per se* cannot be rejected and that the claims must be considered as a whole.

<sup>2</sup> Presumably the phrase should be “Young’s modulus” which is set forth in standard psi/% units in the Claims.

The term “Young’s modulus” is now used in Claims 1, 8, and 9. The term “modulus of elasticity” was previously used in Claim 9. The two terms are equivalent, as shown in the Appendix A listings, pages i and ii, from [www.dictionary.com](http://www.dictionary.com), at the third entry for “modulus” citing *Webster’s Revised Unabridged Dictionary*, 1996, 1998, MICRA, Inc. Further, per the *Dictionary of Fiber & Textile Technology*, Kosa, 1999, pages iii and iv of Appendix A, Young’s modulus is the ratio as calculated from the stress expressed in force per unit cross sectional area, and the strain expressed as a fraction of the original length. Modulus so calculated is equivalent to the force required to strain the sample 100% of its original length, at the rate prevailing below the elastic limit. Applicants attach as Appendix A the definitions of “modulus” from the website [www.dictionary.com](http://www.dictionary.com) as obtained by Applicants’ undersigned attorney of 25 August 2004, and “Young’s modulus” from *Dictionary of Fiber & Textile Technology*.

It should be clear from the definitions listed within the Appendix A that the person having ordinary skill in the art would understand with reasonable certainty the meaning of the specification and the Claims. Because the definition of Young’s modulus sets forth what is to be measured and how those measurements are used to calculate Young’s modulus; and the specification sets forth at page 30, line 4, how the strain was induced in measuring the materials; it is respectfully submitted that one of ordinary skill in the art would easily understand the determination of Young’s modulus as set forth in the specification and the claims of the present invention and that no undue experimentation would be required to make and use the present invention.

The Examiner is further referred to the specification at page 11, line 11 for “antecedent basis” for the terms “MD” and “CD.”

“Machine direction” refers to the length of a fabric in the direction in which it is produced, as opposed to “cross direction” which refers to the width of a fabric in a direction generally perpendicular to the machine direction.

Applicants respectfully submit that “MD” and “CD” are readily recognized by those persons having ordinary skill in the art as being axes in the plane of the fabric. Thus, it is incorrect that “the disclosure lacks antecedent basis for the claimed limitations.”

Nevertheless, in order to expedite prosecution, the Applicants have, per the above-discussed Examiner interview of 19 October 2004, amended the testing description to make clear that the claimed subject matter was derived from the tests as described in the original specification. Accordingly, all objections based upon the Detailed Action’s incorrect determination of “non-enablement” or “lack of antecedent basis” are believed to be obviated and are respectfully requested to be withdrawn.

#### ***Claims Rejections 35 USC § 112***

Per paragraph 5 of the Detailed Action, Claims 1, 2, 4-6, 8-10, 14-19 and 21-25 are rejected under 35 USC § 112, first paragraph, as containing subject matter not sufficiently described in the specification, owing to: “The test procedures for determining a Young’s modulus and a modulus of elasticity as recited in claims 1, 8, and 9 are not enabled by the disclosure. The test characteristics cited in the application do not include the test procedures.”

Applicant’s respectfully traverse and reiterate the above discussion with respect to the *Allowable Subject Matter* heading. The Applicants have amended the

testing description to make clear that the claimed subject matter was derived from the tests as described in the original specification. No confusion or lack of enablement would be apparent to, or could be attributed to, a person having ordinary skill in the art.

Per paragraph 6, of the Detailed Action, Claims 1, 2, 4-6, 8-10, 14-19 and 21-25 are rejected under 35 USC § 112, first paragraph: “because the specification, while being enabling for the embodiments taught in examples 1 and 2 on page 26 of the disclosure, does not: “reasonably provide enablement for other types of materials or combinations of construction.” and further: “fails to teach one of ordinary skill in the art the exact film needed or the exact process for forming the nonwoven web to provide the claimed test results.” Applicants traverse these rejections.

It is first noted that Applicants are not claiming “other types of materials.” All materials claimed are supported by Examples 1 and 2 of the specification which are admitted by the Office to be enabled. Further, the Examiner has not provided sufficient evidence or reasoning to rebut the strong presumption that the specification is adequate to support the claimed invention.<sup>3</sup> It is respectfully submitted that the structure and function

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<sup>3</sup> see MPEP § 2163 citing *In re Wertheim*, 191 USPQ 90, 96 (CCPA 1976).

of the present invention are more than adequately explained to enable a person having ordinary skill in the present art to make and use the claimed invention(s). When the nature of the invention, the state of the prior art (such as cited by the Applicant at pages 25 of the specification with respect to the making of films and nonwovens); the level of one of ordinary skill, and the level of predictability in the art are all properly considered, it is clear that a laundry list of further examples for “other types of materials and combinations of construction,” or setting forth “exact film” or “exact process for forming the nonwoven” is not necessary for persons having ordinary skill in the art to avoid undue experimentation to practice the present invention.

It is further noted that within the presently rejected group of Claims, there are set forth a plurality of very precise embodiments which the Detailed Action has not addressed with specificity to delineate the basis of the present rejections. Particularly, the Examiner is requested to identify the claimed subject matter that is considered to be enabled, per the directives of M.P.E.P § 2164.08. If the present rejections are maintained, Applicants further request that the rejections be clarified and set forth in a subsequent non-final Office Action in order that they have a right to respond once a proper basis for the rejections is set forth.

Applicants note that it has long been settled in the law that the specification need not teach every conceivable embodiment encompassed by the claims. It is further well settled law that Applicants are not required to provide an exact manufacturing specification of the type apparently being required by the Examiner in the present instance. It is therefore believed that the basis of the rejections is not within the

scope of the law (or sound public policy) and that the present rejections must be withdrawn.

Accordingly, all rejections based upon the Detailed Action's incorrect determination of "non-enablement" or "lack of antecedent basis" or the like under § 112, first paragraph, are requested to be withdrawn.

***Claims Rejections 35 USC § 103***

Per paragraph 9 of the Detailed Action, Claims 1, 4 and 8 stand rejected as obvious over McCormack, US Patent 5,855,999 (hereinafter "McCormack").

As previously discussed, while Applicants cited McCormack as an example of breathable film types generally suitable for use the present invention, it is respectfully noted that Applicants clearly teach that any breathable films used in the context of the present invention must be transversely extensible (page 24, line 6) and have a low enough modulus of elasticity to permit an improved gasketing action under loading (stress) during ordinary usage within an absorbent article. Applicants further noted that it would be understood by the person having ordinary skill in the art that such materials as McCormack teaches may have to be modified to meet the criteria of the present invention (page 25, line 8).

Because McCormack contains no discussion or suggestion of a desired Young's modulus, it cannot *prima facie* suggest to the person having ordinary skill in the art the invention as presently claimed. Applicants also refer to the discussion of the Detailed Action at page 6, first full paragraph, wherein McCormack is deemed to be

“capable of having” the claimed modulus of elasticity. Any suggestion that McCormack makes the presently claimed invention obvious merely through the use of similar starting materials at some generic level would require an impermissible *post hoc* rationalization made with the present invention firmly in mind. The situation is analogous to the builder of ships and the builder of cars both starting with steel as a major component of the body work. However, each builder ends with a recognizably distinct and non-interchangeable product according to the teachings of his art.

Claims 4 and 8 are dependent from Claim 1 and incorporate all limitations thereof and are also allowable.<sup>4</sup> Applicants therefore respectfully request that all of the present rejections be withdrawn.

Per paragraph 10 of the Detailed Action, Claims 1, 6, 9, 10, 15, 16 and 25 stand rejected as obvious over Buell (US Patent 5,085,654 hereinafter “Buell”). Each of Claims 1 and 9 specifically recite a material for a containment flap or a containment flap *per se* having a have a low enough modulus of elasticity to permit an improved gasketing action under loading during ordinary usage within an absorbent article, per the above discussion with respect to McCormack.<sup>5</sup> No corresponding teaching of such a containment flap is shown in Buell. All remaining Claims under discussion are dependent from and incorporate the limitations of independent Claims 1 and 9.

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<sup>4</sup> Applicants note the discussion of Claim 2 at page 7 of the Detailed Action. While the rejection of Claim 2 is not listed in the first sentence of paragraph 9, Applicants note that Claim 2 is likewise dependent upon Claim 1 and is therefore allowable.

<sup>5</sup> Applicants herewith incorporate said discussion with respect to the present rejection.



Therefore, the presently amended Claims are not rendered obvious by Buell. Applicants therefore respectfully request that the present rejections be withdrawn.

Per paragraph 11 of the Detailed Action, Claim 5 is rejected as obvious over McCormack in view of Morman, US Patent 5,226,992 (hereinafter "Morman"). It is the contention of the Detailed Action that the two references are properly combined to make the present invention obvious because supplying McCormack with the claimed percentage of necking requires only routine skill in the art and because Morman teaches that the necked percentage (45%) is desired. The proffered motivation presupposes that McCormack teaches the desirability of attaining the (low) level of Young's modulus to maintain extension of the gasket material as taught and claimed by the present invention. However, as discussed above, McCormack is unconcerned with a low level Young's modulus for maintaining extension. It also appears that Morman's teachings are directed to a material with a higher level of recovery (see e.g., col. 9, line 25) and therefore a high Young's modulus (see e.g., col. 14, line 45 for the much higher "modulus of elongation" numbers for the elastic sheet component of Morman's laminate). Morman's teaching of elastic limits, or stretch limits, or both, provide no further impetus for the combination of McCormack and Morman to achieve the structure or effect of the present invention. Therefore, only with the benefit of hindsight and using the present Claims as a template, could the cited references be combined to achieve the present invention.

Applicants therefore respectfully request that the present rejections be withdrawn.

Per paragraph 12 of the Detailed Action, Claims 9, 11-12, 14, and 17-24 are rejected as obvious over McCormack in view of Sauer (US Patent 5,938,652, hereinafter "Sauer"). Sauer teaches a rear waist flap with elasticized ends and a substantially inelastic center area. Applicants respectfully submit that Sauer contains no teachings regarding the containment flaps as per the present Claim 9, upon which the remaining Claims depend. Sauer instead appears to teach zones of elasticity and inelasticity along one axis of its waist panel material. Applicants reiterate their comments with respect to the lack of concern for low modulus extensibility by McCormack. Thus, neither reference, singly or in combination, provides impetus for the combination to achieve the structure or effect of the present invention. Applicants therefore respectfully request that the present rejections be withdrawn.

For all the foregoing reasons, the Claims as presently amended are believed to be allowable over the art of record. A notice to that effect is earnestly solicited.

Request For Telephonic Interview

Clearly, there are differences between the present invention and the cited reference(s) involving patentable subject matter. These differences are believed by the Applicants to be properly defined in the present Claims. The Examiner is requested to call Applicants' attorney (per the provisions of M.P.E.P. § 713) to discuss any further

problems or suggest solutions in defining the present invention in order to expedite the case towards allowance before issuing a final Office Action.

A check in the amount of \$110 is included herewith to cover the extension fee for a response within the second month past the shortened statutory period.

Favorable consideration is requested.

Respectfully submitted,



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## 5 entries found for *modulus*.

**mod·u·lus** P Pronunciation Key (m j -l s)

*n. pl. mod·u·li* (-l )

1. *Abbr. m or M* Physics. A quantity that expresses the degree to which a substance possesses a property, such as elasticity.
2.
  - a. Mathematics. The absolute value of a complex number.
  - b. *Abbr. mod* A number by which two given numbers can be divided and produce the same remainder.
  - c. The number by which a logarithm in one system must be multiplied to obtain the corresponding logarithm in another system.

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[Latin, diminutive of *modus*, *measure*. See *med-* in Indo-European Roots.]

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Main Entry: **mod·u·lus**

Pronunciation: 'māj - & - l & s

Function: *noun*

Inflected Form: *plural mod·u·li* / -"lɪ, -"lɛ/

: a constant or coefficient that expresses usually numerically the degree to which a substance or body possesses a property (as elasticity)

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Source: *Merriam-Webster Medical Dictionary, © 2002 Merriam-Webster, Inc.*

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**modulus**

\Mod"u\*lus\, n.; pl. Moduli. [L., a small measure. See Module, n.] (Math., Mech., & Physics) A quantity or coefficient, or constant, which expresses the measure of some specified force, property, or quality, as of elasticity, strength, efficiency, etc.; a parameter.

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Modulus of a machine, a formula expressing the work which a given machine can perform under the conditions involved in its construction; the relation between the work done upon a machine by the moving power, and that yielded at the working points, either constantly, if its motion be uniform, or in the interval of time which it occupies in passing from any given velocity to the same velocity again, if its motion be variable; -- called also the efficiency of the machine. --Mosley. --Rankine.

Modulus of a system of logarithms (Math.), a number by which all the Napierian logarithms must be multiplied to obtain the logarithms in another system.

Modulus of elasticity. (a) The measure of the elastic force of any substance, expressed by the ratio of a stress on a given unit of the substance to the accompanying distortion, or strain. (b) An expression of the force (usually in terms of the height in feet or weight in pounds of a column of the same body) which would be necessary to elongate a prismatic body of a transverse section equal to a given unit, as a square inch or foot, to double, or to compress it to half, its original length, were that degree of elongation or compression possible, or within the limits of elasticity; -- called also Young's modulus.

Modulus of rupture, the measure of the force necessary to break a given substance across, as a beam, expressed by eighteen times the load which is required to break a bar of one inch square, supported flatwise at two points one foot apart, and loaded in the middle between the points of support. --Rankine.

[Free Trial - Merriam-Webster Unabridged.]

Source: *Webster's Revised Unabridged Dictionary*, © 1996, 1998 MICRA, Inc.

## modulus

n 1: an integer that can be divided without remainder into the difference between two other integers; "2 is a modulus of 5 and 9" 2: the absolute value of a complex number 3: (physics) a coefficient that expresses how much of a specified property is possessed by a specified substance

Source: *WordNet* ® 2.0, © 2003 Princeton University

## modulus

modulus: in CancerWEB's On-line Medical Dictionary

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**MOCK DYEING:** A heat stabilization process for yarns. The yarns are wound onto packages and subjected to package dyeing conditions (water, pressure, temperature) but without dye and chemicals in the bath.

**MOCK LENO:** A combination of weaves having interlacings that tend to form the warp ends into groups (with empty spaces intervening) in the cloth, thereby giving an imitation of the open structure that is characteristic of leno fabrics. Mock leno fabrics are used for summer shirts, dresses, and other apparel, and as a shading medium in Jacquard designs.

**MODACRYLIC FIBER:** A manufactured fiber in which the fiber-forming substance is any long chain synthetic polymer composed of less than 85% but at least 35% by weight of acrylonitrile units (FTC definition). Both wet and dry spinning are used.

**CHARACTERISTICS:** Although modacrylics are similar to acrylics in properties and applications, certain important differences exist. Modacrylics have superior resistance to chemicals and combustion, but they are more heat sensitive (lower safe ironing temperature) and have a higher specific gravity (less cover).

**END USES:** The principal applications of modacrylic fibers are in pile fabrics, flame-retardant garments, draperies, and carpets.

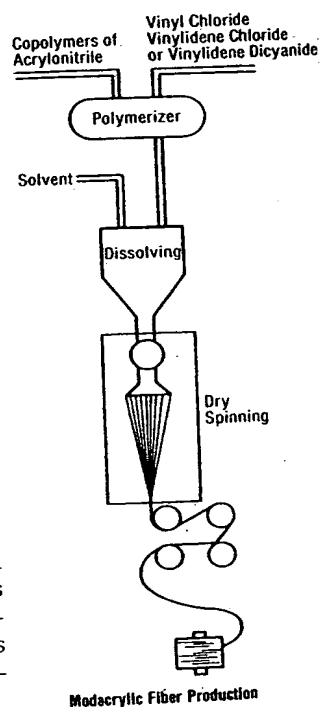
**MODIFIED STRETCH YARN:** See TEXTURED YARNS, 6.

**MODIFIED WORSTED SPINNING SYSTEM:** A system for spinning manufactured fibers that is based on the WORSTED SPINNING SYSTEM for long-staple wool fibers. The combing operation is omitted and parallelization of the sliver is accomplished during pin drafting.

**MODULUS:** The ratio of change in stress to change in strain following the removal of crimp from the material being tested; i.e., the ratio of the stress expressed in either force per unit linear density or force per unit area of the original specimen, and the strain expressed as either a fraction of the original length or percentage elongation. (Also see YOUNG'S MODULUS.)

**MOHAIR:** See ANGORA, 1.

**MOIRÉ:** 1. A wavy or watered effect on a textile fabric, especially a corded fabric of silk, rayon, or one of the manufactured fibers. Moiré is produced by passing the fabric between engraved cylinders which press the design into the material, causing the crushed and uncrushed parts to reflect light differently.



2. An unintentional moiré effect where the weave of one layer is out of phase with the weave of another layer, causing a moiré effect on rolled goods.

**MOISTURE-FREE WEIGHT:** The weight of a dry substance calculated by drying at a temperature of 105°C (221°F) to constant weight (e.g., by distillation or Fischer reagent).

**MOISTURE PROPERTIES:** The ability of a material to absorb and retain moisture. It is usually expressed in terms of relative humidity. Measurements are fixed at 65% relative humidity.

**MOISTURE REGAIN:** The percentage of moisture absorbed by a material when it is brought into equilibrium with a standard atmosphere of 65% relative humidity.

**MOLESKIN:** A heavy yarn. The fabric is made from a coarse yarn in a 4 x 4 twill weave.

**MONK'S CLOTH:** A coarse yarn in a 4 x 4 twill weave.

**MONOFIL:** See MONOFILAMENT.

**MONOFILAMENT:** A single filament of fiber, usually denier higher than 14. A spinneret to form a Monofilament can be used for nontextile uses such as fishing line.

**MONOMER:** The simplest form of a polymer can be made from a monomer.

**MORDANT:** A chemical used in dyeing to fix the color.

**MORESQUE:** A multi-colored pattern.

**MORPHOLOGY:** The structure of a material.

**MOTE:** A small piece of fiber removed, they can be used for testing.

**MOY:** Acronym for Moisture.

**MUFF:** A loose skein of yarn used for testing.

**MUFF DYEING:** See MUFF.

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Increasing cord twist or increasing yarn diameter lowers conversion efficiency.

**YARN VARIATION:** See RING, 1.

**YELLOWNESS COEFFICIENT:** Measure of the color of a molded acetate disc or dope solution.  $Cy = 1 - T_{4400}/T_{6400}$  where Cy is the yellowness coefficient;  $T_{4400}$  is the transmission at 4400A (blue); and  $T_{6400}$  is the transmission at 6400A (orange).

**YIELD:** 1. Number of linear or square yards of fabric per pound of fiber or yarn. 2. The number of finished square yards per pound of greige fabric.

**YIELD POINT:** Point on the stress-strain curve where the load and elongation stop being directly proportional. (Also see ELASTIC LIMIT.)

**YOUNG'S MODULUS:** A property of perfectly elastic materials, it is the ratio of change in stress to change in strain within the elastic limits of the material. The ratio is calculated from the stress expressed in force per unit cross-sectional area, and the strain expressed as a fraction of the original length. Modulus so calculated is equivalent to the force required to strain the sample 100% of its original length, at the rate prevailing below the elastic limit.

## Z

**ZD:** Acronym for ZERO DEFECTS.

**ZEIN FIBER:** A manufactured fiber of regenerated protein derived from maize.

**ZERO DEFECTS:** In quality control, a goal to produce goods with no defects and to work without producing any errors.

**ZERO-TWIST:** Twistless; devoid of twist.

**ZIMMER CARPET PRINTING MACHINES:** See PRINTING, 2.

**ZIPPERING:** A carpet defect that occurs when tufts are not securely encapsulated by the backsizing compound. Tufts are easily pulled from the backing in long lengthwise runs.

**Z TWIST:** See TWIST, DIRECTION OF.

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